

CLAIMS

1. A method for the fabrication of a semiconductor light-emitting device, comprising the steps of:
 - stacking at least a first conductive type semiconductor layer, an active layer and a second conductive type semiconductor layer on a substrate to form a wafer;
 - forming on a side of growth surfaces of the semiconductor layers first trenches exposing the first conductive type semiconductor layer;
 - forming second trenches reaching the substrate from above the first trenches by the use of a laser beam;
 - forming third trenches from the substrate at positions corresponding to the second trenches; and
 - dividing the wafer into chips.
2. A method according to claim 1, wherein the third trenches have a greater width than the second trenches.
3. A method according to claim 1 or claim 2, wherein the third trenches have a greater width than the first trenches.
4. A method according to any one of claims 1 to 3, wherein the third trenches are formed by using a laser beam or a dicing blade.
5. A method according to any one of claims 1 to 4, wherein the third trenches are formed by combining a laser beam and a dicing blade.
6. A method according to any one of claims 1 to 4, wherein the third trenches are formed by radiating a laser beam two times or more.

7. A method according to any one of claims 1 to 6, wherein the substrate is lapped, ground or polished till a thickness thereof reaches 100 μm or less inclusive of an epitaxial layer prior to the formation of the third trenches.
8. A method according to any one of claims 1 to 7, wherein the first conductive type semiconductor layer is an n-type semiconductor layer and the second conductive type semiconductor layer is a p-type semiconductor layer.
9. A method according to any one of claims 1 to 9, wherein the substrate is a sapphire substrate.
10. A method according to any one of claims 1 to 9, wherein the semiconductor light-emitting device is a nitride-based semiconductor light-emitting device.
11. A method according to any one of claims 1 to 10, wherein the semiconductor light-emitting device is a gallium nitride-based semiconductor light-emitting device.
12. A semiconductor light-emitting device produced by using the method for the fabrication of the semiconductor light-emitting device according to any one of claims 1 to 11.